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THE CONDOR A MAGAZINE OF WESTERN ORNITHOLOGY.



Volume XII

July-August, 1910

Number 4

SOME COLORADO NIGHT HERON NOTES

By ROBERT B. ROCKWELL.

WITH NINE PHOTOS BY THE AUTHOR

DURING the spring of the years 1906, 1907 and 1908, a happy combination of circumstances made it possible for the writer to spend a portion of each week at Barr, a station nineteen miles northeast of Denver, Colorado, studying the abundant bird life along the chain of reservoirs and seepage ponds, which extends from this point several miles to the northeast. During the time I worked in this field I was the guest of, and was accompanied by, Mr. L. J. Hersey, to whom I wish to express my appreciation for the convenient opportunities for field work thus afforded.

During these three seasons I was greatly interested in the breeding habits of the Black-crowned Night Heron (*Nycticorax nycticorax naevius*) and spent much time observing them. The result of these observations, together with some supplementary work done at other times and places, may prove of some interest to CONDOR readers.

My first experience with the Night Heron as a breeding bird was the discovery of eighteen birds in a colony of Great Blue Herons which occupied a small clump of very tall cottonwoods on the St. Vrain River not far from the town of Lyons, Colorado. This was on April 21, 1906, and at this date only one pair of the Night Herons seemed to have located a nest, altho the remaining eight pairs were apparently busily engaged in selecting nesting sites.

All of the nests in this rookery were practically inaccessible, being built amid the slender topmost branches of the tallest trees, and this fact, coupled with what I had read in various text-books, had created the impression in my mind that the Night Heron was strictly a "tree-nesting" bird.

It was, therefore, with some surprise and not a little incredulity that I was informed some six weeks later that a good-sized colony of these birds was breeding a few miles below Barr in a cat-tail swamp, the nests being placed upon or near the

ground. A visit to the spot was promptly arranged for, and early on the morning of June 5 we reached the breeding grounds. As we approached the spot where the colony was supposed to be located, not a sign of the birds was to be seen—save the monotonous expanse of cat-tail marsh, flanked by a small rush-bound lake on one side and the sun-burned prairie on the other. We had worked well into the cat-tails, which towered some distance above our heads, when as if by a given signal the breeding birds rose from their nests in a cloud, and with much squawking, scolding and flapping of wings, rapidly retreated to a place of safety in the marsh half a mile or more distant. Fifty yards farther on we came to the spot from which the birds had risen, and here in the dense cat-tails were the nests, probably one hundred and fifty in all, large, clumsy, yet withal well built structures of coarse sticks and weed stalks, ranging in height from six inches to three feet above



Fig. 31. ONE OF THE SETS OF SIX EGGS OF THE BLACK-CROWNED NIGHT HERON WAS IN A NEST IN THE CAT-TAILS WHICH APPEARED TO BE A TWO-STORY AFFAIR, THE NEW NEST BEING BILT UPON THE REMAINS OF THE LAST YEAR'S NEST

the ground, which was wet and boggy and in many places covered with several inches of water.

The nests contained young of all sizes and ages, and many awkward, half-grown youngsters were skulking among the rushes. They did not appear to be particularly timid, but on the contrary seemed rather dull and stupid. Occasionally upon being worried, one would muster enough energy to peck viciously at a finger, giving vent meanwhile to hoarse squawks; but on the whole their interest in life appeared to be very casual. Nearly every nest contained the bodies of one or more "water-dogs" (the larval form of *Amblystoma tigrinum*) and many of the young birds in the nests disgorged these animals upon our approach. Whether this was the result of fear, or of some physical cause we were unable to determine. These particular creatures evidently constituted an important part of the food of

the young, and it would be interesting to know where the parent birds found enough of these animals to supply the demands of all those ravenous young mouths.

The old birds exhibited quite a little concern over our presence, but they were at all times quite wary, and did not come within several hundred yards of the nests while we were there.

On June 23, of the same year, we discovered a small colony of these birds nesting in some thickets of scrub willow which had grown up along the shore of a large reservoir, but which owing to the high water were now partially submerged, and were some forty yards out in the lake from the water's edge. In this colony there were twenty-eight nests containing eggs, mostly sets of three and four, altho we found two sets of five eggs each. The nests varied in hight from two to ten feet above the water-level, but the majority were from six to eight feet up. The water was little more than knee deep, but there were only four nests that could be reacht without climbing.



Fig. 32. A FLOATING NEST OF THE NIGHT HERON, MAY 18, 1907

The nests were composed entirely of sticks ranging in length from four inches to eighteen inches, and from one-eighth to one-fourth of an inch in diameter. They were slightly but uniformly cupped, but were very irregular in contour owing to the varying length of the sticks, and in nearly every instance were longer one way than the other. They were all bilt in crotches, either main or lateral, and were held in place by numerous small twigs.

These nests averaged less than half the size of the nests in the colony in the rushes, and were much inferior to them in construction. In nearly every instance the eggs could be seen from the ground, thru the bottom of the nest.

The birds were quite tame, sometimes alighting within twenty feet of us, and a few stayed on their nests until we had approacht to within ten or fifteen feet. Many of the birds circled in the air above the nests, while we were examining them, occasionally giving voice to a low, guttural cluck not unlike the cluck of a hen.

We were, by this time, thoroly interested in these strange, awkward tho rather handsome birds, and we lookt forward eagerly to their return in the spring of 1907. The first birds were noted April 26, when four birds were seen just at sun-set alighting in the willow thicket where they had nested the year before. During the rest of the spring these willows were watcht closely, but without results; and finally, on June 8, a thoro examination of them was made and not a single occupied nest was found.

Meanwhile, on May 11, while working over a small lake about half a mile below the marsh which harbored the nesting colony of the preceding year, we found two nests of these erratic birds, bilt just above the surface of water almost waist deep and fully fifty yards out from the shore of the lake. These nests—the bottoms of which were just level with the surface of the water—were supported by masses of floating, dead vegetation, and were anchored in place by a few upright dead cat-tail stalks. They were beautifully bilt affairs of slender twigs and weed-stalks, very large, bulky, deeply cupt and quite symmetrical; and lying far out



Fig. 33. THE SAME NEST AS SHOWN IN PRECEDING PICTURE, MAY 31, 1907;
THE YOUNG ABOUT A WEEK OLD

from shore upon the open water they were very conspicuous, being easily discernible at a distance of one hundred yards. The parent birds were very wild, and it was impossible to approach anywhere near the nests without flushing the birds.

From here we went to the site of the previous year's colony in the marsh, where we examined about twenty nests, a few being empty, but the rest containing from one to four eggs. Without exception these nests were much inferior in construction to those of the preceding year, the majority of them being flat, fragile structures composed of dead rushes and cat-tails, in several instances so poorly put together that the eggs had rolled out of the nests into the water below. On this visit we counted about eighty birds, a large part of which were apparently non-breeders, as they flusht in a compact flock when we were fully one hundred yards away, and showed no particular desire to return to the nests while we remained in the vicinity.

A week later we discovered three more of the "floating" nests very near the

two seen on the 11th, one nest containing five eggs and two containing three eggs each. All three were very fine examples of nest biding, similar in every way to the nests found the preceding week. A photo was taken of the nest and five eggs, which turned out to be the first of a very interesting series of pictures of this particular nest.



Fig. 34. THE SAME NEST JUNE 8, 1907; THE YOUNG ABOUT TWO WEEKS OLD



Fig. 35. THE SAME NEST JUNE 15, 1907; THE YOUNG ABOUT THREE WEEKS OLD

Upon visiting the larger colony in the swamp, we were dismayed to find that some vandal (whether two-footed or four-footed we could not determine) had visited the colony and partially destroyed it; fully half of the nests contained broken egg-shells, and many of the nests were entirely destroyed.

On this visit we found two sets of six eggs each which were the

only sets of six seen in the examination of several hundred nests. One of these sets of six was in a nest which appeared to be a "two-story" affair, the new nest being bilt upon the remains of the last year's nest.

A week later, on the twenty-fourth, the two nesting sites were visited again. The larger colony in the rushes was in about the same condition as on our preceding visit, but most of the birds whose nests had been destroyed, and the non-breeding birds had disappeared.

The floating nest which was photograph before, contained four eggs and one newly hatcht chick (which afterward fell into the water and was drowned), but the negative made at this time met with an accident and no picture was secured. Following this, weekly visits were made to the various nests, and photos of the young birds in the nest which was first photographt on the 18th, were made May 31 (when the birds were about one week old), June 8, 15, 22 and 30, respectively.

These birds were apparently able to leave the nest by the 15th (when they



Fig. 36. THE SAME NEST JUNE 22, 1907; THE YOUNG ABOUT FOUR WEEKS OLD

were about three weeks old), but to our suprise they remained for more than two weeks after this date. After the 15th, however, they become much wilder and more difficult to approach, and our coming was usually attended by rather strenuous races thru the waist-deep water before the clumsy youngsters could be returned to the nest from which they had flopt upon our too close approach. On June 30, we found the level of the lake about six inches higher than on the preceding week, the nest completely inundated and the four great, stupid birds huddled together in the nest, drencht to the skin, the very picture of dejection and despair. The following week we found the nest empty, and the young had disappeared.

Meanwhile the remainder of the colony in the swamp was progressing nicely. The first young of the year was seen on the wing June 15. On the same date two sets of fresh eggs were found close by. On June 22 nearly all of the nests contained young birds. On July 7 a few young remained in the nests, but they were fully feathered and almost able to fly. On July 21, all of the young save a few belated arrivals were on the wing, and the breeding season of 1907 was at an end.

Just preceding the return of the birds in 1908, a spark from a passing engine ignited the dry rushes, and the nesting site of the preceding years was entirely obliterated. The birds were first noted on the same date as in 1907—April 26—but a careful search of all the lakes failed to reveal their nesting place until, on May 16, in an endeavor to discover the nesting place of the many Great Blue Herons which frequented the Barr chain of lakes, we stumbled onto the rookery of both.

It was located some ten miles southwest of the lakes in a grove of cottonwood trees on the bank of the South Platte River. The Great Blue Herons had selected the tops of some lofty trees for their nesting sites, and almost beneath them in a dense grove of second-growth cottonwoods were the Night Herons' nests, a hundred or more of them, ranging from ten to twenty feet above the ground in saplings two to four inches in diameter. They were practically identical in construction with the nests which we had examined two years before in the willow thicket over



Fig. 37. THE SAME NEST JUNE 30, 1907; THE NEST COMPLETELY INUNDATED AND THE FOUR GREAT STUPID BIRDS HUDDLED TOGETHER IN THE NEST, DRENCHT TO THE SKIN, THE VERY PICTURE OF DEJECTION AND DESPAIR

the water, but were, if anything, a trifle larger and better bilt.

The parent birds were quite tame and seemed much excited over our intrusion. On this date, May 16, most of the nests contained incomplete sets—one, two and three eggs—altho one set which was collected was heavily incubated. On June 5 many of the nests contained freshly hatcht young and two birds were seen that were almost large enough to fly. On July 5 nearly all of the young birds were well grown and were out of the nests, climbing awkwardly about among the branches which, being heavily foliated, afforded them good concealment and protection from the broiling sun.

A year later, on May 9, 1909, a visit to the heronry found the Great Blue Herons busily nesting, but not a Night Heron was to be seen. A diligent search, however, disclosed a new rookery, some two miles above the old one, excellently concealed in a very dense grove of young cottonwood saplings near the river bank. The nests, of which there were about a hundred, were identical with those

examined the previous year, and were placed on the branches against the tree trunks at a uniform height of about twenty feet. Most of them contained incomplete sets, or fresh, complete sets.

The nesting season of 1909 closed without affording another opportunity to visit this colony, and now we look forward with much interest to the nesting season of 1910; for these peculiar birds seem to have a surprise in store for us each year, and we are at a loss to know what the next one will be.

Our four years' experience with these birds brought to light a wide variation in habits and actions, and a few peculiarities that were remarkably constant. We found nests in the tallest trees; in medium-sized saplings; just over the surface of the water in low willows; on or just above the ground amid cat-tails; and literally floating on the surface of the water far out from shore. We found complete and



Fig. 38. YOUNG BLACK-CROWNED NIGHT HERONS
WELL GROWN AND OUT OF THE NEST
CLIMBING AWKWARDLY ABOUT
AMONG THE BRANCHES

heavily incubated sets of three, four, five and six eggs. We found sets of fresh eggs within a few feet of nests containing half-grown young; and on the same day we saw young on the wing. We found some birds so timid that it was impossible to approach within a hundred yards of them, and others so tame that we could almost put our hands on them. We found some parent birds that exhibited absolutely no signs of anxiety for the safety of their nests, and others that showed every evidence of uneasiness during our visits. We found young birds that seemed totally indifferent to our presence; others that exhibited a craven fear of us; and still others that were extremely pugnacious, and apparently fearless.

On the other hand we noted a remarkable similarity between all nests built in similar locations, and a surprisingly small variation in the shape and color of the

hundreds of eggs examined. The nests were without exception entirely devoid of lining, the eggs being laid on the closely woven network of small sticks which was generously littered with excrement and filth.

All of the biding material was carried by the birds *in the bill*. Of all the birds observed not one was seen carrying anything (including food) in the claws.

The birds' only call given when on the wing, was a low, coarse, guttural sound resembling the word "whork" or "whark" when spoken in a very low pitch; and they decoyed with surprising stupidity to even the poorest imitation of the sound. Mr. J. Alden Loring who was my companion on several of these trips, and who is an adept at bird and animal mimicry, repeatedly brought the birds almost to us by his excellent imitation of the Night Heron call. The young when on the defensive open their great mouths to an amazing extent, and give vent to a very loud,



Fig. 39. NESTS OF BLACK-CROWNED NIGHT HERON IN WILLOW SAPLINGS

hoarse, rasping squawk which is quite terrifying.

After leaving the nests, the young and adult birds congregate in flocks of varying sizes, and during the day frequent the cottonwood trees around the small lakes and ponds, where the mottled brownish plumage of the young blends wonderfully with the lights and shades of the foliage, affording them perfect concealment. Most of the feeding is probably done in the late evening and during the night, as the croak of the Night Herons could be heard about the Barr lakes at all hours of the night.

Taken in all, this quaint, queer, awkward, and erratic bird is one of the most intensely interesting species with which my tramps afield have brought me into close acquaintance, and I hope that future field work will enable us to solve some of the many problems which up to this time we have been unable to answer.